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Inventor Information for 10/759902

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US 20050277992	US- PGPUB	20051215	21	Collecting and analyzing sensed	607/9	600/509	Koh, Steve et al.
A1				information as a trend of heart failure progression			
				or regression	607/17) A': 37' '
US 20050216067 A1	US- PGPUB	20050929		System and method for predicting a heart condition based on impedance values using an implantable medical device	607/17		Min, Xiaoyi et al.
US 20050215914 A1	US- PGPUB	20050929		System and method for evaluating heart failure based on ventricular enddiastolic volume using an implantable medical device	600/508		Bornzin, Gene A. et a
US 20050125041 A1	US- PGPUB	20050609		Methods for ventricular pacing	607/9		Min, Xiaoyi et al.
US 20050080471 A1	US- PGPUB	20050414		Lead body construction	607/122		Chitre, Yougandh e
US 20050059897 A1	US- PGPUB	20050317		Statistical analysis for implantable cardiac devices	600/510		Snell, Jeffer D. et al.
US 20050055060 A1	US- PGPUB	20050310		Determination of respiratory characteristics from AV conduction intervals	607/17		Koh, Steve o
US 20040267321 A1	US- PGPUB	20041230		Method and apparatus for monitoring drug effects on cardiac electrical signals using an implantable cardiac stimulation device	607/3	607/9	Boileau, Peter et al.
US 20040243210	US- PGPUB	20041202		Fixation of a left heart medical lead	607/122	607/125	Morgan, Kevin L. et

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Al				in the coronary sinus			al.
US 20030220677 A1	US- PGPUB	20031127		Implantable coronary sinus lead and lead system	607/122	607/125	Doan, Phong D. et al.
US 20030220676 A1	US- PGPUB	20031127		Electrode arrangements for body implantable pacing and sensing leads	607/122		Helland, John R.
US 20030195579 A1	US- PGPUB	20031016		Automatic capture using independent channels in bi-chamber stimulation	607/27		Bradley, Kerry et al.
US 20030171782 A1	US- PGPUB	20030911		Method and apparatus for using a rest mode indicator to automatically adjust control parameters of an implantable cardiac stimulation device	607/19		Florio, Joseph J. et al.
US 20030171781 A1	US- PGPUB	20030911	-	Method and apparatus for using a rest mode indicator to automatically adjust control parameters of an implantable cardiac stimulation device	607/17	607/19	Florio, Joseph J. et al.
US 20030163165 A1	US- PGPUB	20030828		Implantable cardiac stimulation device that defibrillates the atria while avoiding the ventricular vulnerable period and method			Bornzin, Gene A. et al.
US 20030153956 A1	US- PGPUB	20030814		Cardiac stimulation device including sleep apnea prevention and treatment	607/17		Park, Euljoon et al.

US 20030153955 A1	US- PGPUB	20030814	Cardiac stimulation device including sleep apnea prevention and treatment	607/17	Park, Euljoon et al.
US 20030153954 A1	US- PGPUB	20030814	Sleep apnea therapy device using dynamic overdrive pacing	607/17	Park, Euljoon et al.
US 20030153953 A1	US- PGPUB	20030814	Stimulation device for sleep apnea prevention, detection and treatment	607/17	Park, Euljoon et al.
US 20030130704 A1	US- PGPUB	20030710	Method and apparatus for dynamically adjusting a nonlinear overdrive pacing response function	607/11	Florio, Joseph J. et al.
US 20030130703 A1	US- PGPUB	20030710	Method and apparatus for dynamically adjusting overdrive pacing parameters	607/11	Florio, Joseph J. et al.
US 20030083708 A1	US- PGPUB	20030501	Implantable cardiac stimulation system and method for automatic capture verification calibration	607/27	Bradley, Kerry et al.
US 20030074040 A1	US- PGPUB	20030417	System, device and method for placing a body implantable lead in the coronary sinus region of the heart	607/119	Florio, Joseph J. et al.
US 20030050681 A1	US- PGPUB	20030313	Self-anchoring coronary sinus lead	607/125	Pianca, Anne M. et al.
US 20030045910 A1	US- PGPUB	20030306	Pacing mode to reduce effects of orthostatic hypotension and syncope	607/23	Sorensen, Chris et al.

US 20030040778 A1	US- PGPUB	20030227	Orientation of patient's position sensor using external field	607/17	Kroll, Mark W. et al.
US 20030040776 A1	US- PGPUB	20030227	Detection of patient's position and activity status using 3D accelerometer-based position sensor	607/9	Kroll, Mark W. et al.
US 20030009197 A1	US- PGPUB	20030109	Implantable multi- chamber cardiac stimulation device with sensing vectors	607/9	Helland, John R. et al.
US 20020147488 A1	US- PGPUB	20021010	Body implantable lead with improved tip electrode assembly	607/122	Doan, Phong D. et al.
US 20020120318 A1	US- PGPUB	20020829	His bundle sensing device and associated method	607/149	Kroll, Mark W. et al.
US 20020120303 A1	US- PGPUB	20020829	Implantable cardiac device providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method	607/14	Levine, Paul A. et al.
US 20020120301 A1	US- PGPUB	20020829	Implantable cardiac device providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using secondary pacing pulses and method	607/9	Levine, Paul A. et al.
US 20020103524 A1	US- PGPUB	20020801	Implantable cardiac single pass coronary sinus lead	607/122	Bornzin, Gene A. et al.

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	T	1	for providing		
			for providing		
			pacing and defibrillation and		
İ			method of		
			l l	•	
			manufacture	607/100	TT-111 T-1
US	US-	20020801	Implantable cardiac	607/122	Helland, John
20020103523	PGPUB		coronary sinus lead		R. et al.
A1			having a		
			defibrillation		
	:		electrode of split		
			configuration and		
			method of		
			manufacture		
US	US-	20020801	Method of	607/5	Helland, John
20020103509	PGPUB		defibrillating a		R.
A1			heart using		
			substantially		
			orthogonal		
			sequential		
			defibrillation		
			shocks		
US	US-	20020801	Method of	607/5	Helland, John
20020103507	PGPUB		defibrillating a		R.
A1			heart with electrode		
			configurations		
			including a left		
			ventricular		
			defibrillation		
			electrode		
US	US-	20020801	Universal pacing	607/4	Helland, John
20020103506	PGPUB		and defibrillation		R.
Al		i i	system		
US	US-	20020718	System and method	607/28	Bornzin,
20020095190	PGPUB		for automating		Gene A. et al.
Al	10102		capture verification		
111			assessment and		
			pacing threshold		
			assessment using a		
		1	programmer		
US	US-	20020110	Implantable cardiac	607/9	Florio,
20020004672	PGPUB	20020110	stimulation device		Joseph J. et
A1	1 31 00		with detection and		al.
\ \text{\rm 1}			therapy for patients		
			with vasovagal		
			syncope		
US	US-	20020110	System and method	607/9	Bornzin,
_03	100-	20020110	O Jotolii alia iliotiloa		

20020004671	PGPUB		for preventing			Gene A. et al
A1			sudden heart rate drop using implantable cardiac			
			pacing device			
US 20020004670 A1	US- PGPUB	20020110	Implantable cardiac stimulation device with detection and therapy for patients with vasovagal syncope	607/9		Florio, Joseph J. et al.
US 20020002389 A1	US- PGPUB	20020103	Cardiac stimulation devices and methods for measuring impedances associated with the left side of the heart	607/8		Bradley, Kerry et al.
US 20010049542 A1	US- PGPUB	20011206	System and method for automatically verifying capture during multichamber stimulation	607/28		Florio, Joseph J. et al.
US 20010037136 A1	US- PGPUB	20011101	Lead with polymeric tubular liner for guidewire and stylet insertion	607/122		Pianca, Anne M. et al.
US 20010037135 A1	US- PGPUB	20011101	Lead with polymeric tubular liner for guidewire and stylet insertion	607/122		Pianca, Anne M. et al.
US 7058454 B1	USPAT	20060606	Stimulation/sensing electrodes for use with implantable cardiac leads in coronary vein locations	607/116	257/4	Chitre; Yougandh et al.
US 7056314 B1	USPAT	20060606	Steerable obturator	604/528	604/95.01	Florio; Joseph J. et al.
US 7043302 B1	USPAT	20060509	Methods and apparatus for overdrive pacing heart tissue using	607/9		Florio; Joseph J. et al.

			an implantable cardiac stimulation device			
US 7031774 B1	USPAT	20060418	Switch for electrode selections in Single-pass Atrial/Ventricular leads	607/37	607/119; 607/122; 607/123; 607/38	Doan; Phong D. et al.
US 7027852 B2	USPAT .	20060411	Lead with distal tip surface electrodes connected in parallel	600/375	600/374; 607/127	Helland; John R.
US 7024243 B1	USPAT	20060404	System and methods for preventing, detecting, and terminating pacemaker mediated tachycardia in biventricular implantable cardiac stimulation device	607/14	600/518	Bornzin; Gene A. et al.
US 7024241 B1	USPAT	20060404	Pacing pulse waveforms that support simultaneous intracardiac signal sensing and analysis	607/9		Bornzin; Gene A. et al.
US 7010358 B1	USPAT	20060307	Single lead system for high voltage CHF device	607/122		Kroll; Mark W. et al.
US 7006868 B2	USPAT	20060228	Method and apparatus for using a rest mode indicator to automatically adjust control parameters of an implantable cardiac stimulation device	607/19		Florio; Joseph J. et al.
US 6999817 B2	USPAT	20060214	Cardiac stimulation device including sleep apnea prevention and	607/19	607/9	Park; Euljoon et al.

			treatment			
US 6990374 B1	USPAT	20060124	Methods and apparatus for overdrive pacing heart tissue using an implantable cardiac stimulation device	607/9		Florio; Joseph J. et al.
US 6988007 B1	USPAT	20060117	Single pass telescoping cardiac lead for the left heart	607/123	600/374; 607/125	Morgan; Kevin L. et al.
US 6968237 B2	USPAT	20051122	Implantable coronary sinus lead and lead system	607/122		Doan; Phong D. et al.
US 6968232 B2	USPAT	20051122	Method and apparatus for using a rest mode indicator to automatically adjust control parameters of an implantable cardiac stimulation device	607/18		Florio; Joseph J. et al.
US 6937900 B1	USPAT	20050830	AC/DC multi-axis accelerometer for determining patient activity and body position	607/19	607/18	Pianca; Anne M. et al.
US 6934587 B1	USPAT	20050823	System and method for automatic atrial capture detection and atrial pacing threshold determination	607/28		Bornzin; Gene A. et al.
US 6928324 B2	USPAT	20050809	Stimulation device for sleep apnea prevention, detection and treatment	607/20	607/18; 607/42	Park; Euljoon et al.
US 6925326 B1	USPAT	20050802	Implantable cardiac stimulation system and method for measuring atrioventricular conduction and	600/510	607/9	Levine; Paul A. et al.

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			adjusting atrioventricular hystersis			
US 6915164 B2	USPAT	20050705	Automatic capture using independent channels in bi- chamber stimulation	607/29		Bradley; Kerry et al.
US 6907296 B1	USPAT	20050614	Implantable cardiac lead having convenient implant location identification and method of manufacture	607/119		Doan; Phong D. et al.
US 6904321 B1	USPAT	20050607	System and method of identifying fusion for dual-chamber automatic capture stimulation device	607/27		Bornzin; Gene A. et al.
US 6904320 B2	USPAT	20050607	Sleep apnea therapy device using dynamic overdrive pacing	607/17		Park; Euljoon et al.
US 6904317 B2	USPAT	20050607	Method and apparatus for dynamically adjusting overdrive pacing parameters	607/9	607/11	Florio; Joseph J. et al.
US 6889077 B2	USPAT	20050503	Implantable cardiac stimulation device that defibrillates the atria while avoiding the ventricular vulnerable period and method	607/4	607/63	Bornzin; Gene A. et al.
US 6882887 B1	USPAT	20050419	Implantable lead and electrode portion	607/122		Shelchuk; Anne M. et al.
US 6862471 B1	USPAT	20050301	Method and apparatus for blanking T-waves from combipolar atrial cardiac	600/509	607/9	McClure, Kelly H. et al.

			signals based on expected T-wave locations			
US 6832112 B1	USPAT	20041214	Method of adjusting an AV and/or PV delay to improve hemodynamics and corresponding implantable stimulation device	607/9		Bornzin; · Gene A.
US 6804556 B1	USPAT	20041012	Methods and apparatus for overdrive pacing heat tissue using an implantable cardiac stimulation device	607/9		Florio; Joseph J. et al.
US 6792307 B1	USPAT	20040914	Implantable cardiac stimulation system and method for measuring atrioventricular conduction and adjusting atrioventricular hysteresis	607/9	600/509	Levine; Paul A. et al.
US 6782291 B1	USPAT	20040824	Implantable cardiac stimulation device with automatic evoked response sensing electrode configuration selection and method	607/28		Bornzin; Gene A. et al.
US 6766203 B2	USPAT	20040720	Body implantable lead with improved tip electrode assembly	607/122		Doan; Phong D. et al.
US 6766195 B1	USPAT	20040720	Method and apparatus for detecting natural electrical coherence within the heart and for administering therapy based	607/14	600/515; 607/4; 607/5	Bornzin; Gene A. et al.

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			thereon			
US 6760622 B2	USPAT	20040706	Implantable multi- chamber cardiac stimulation device with sensing vectors	607/9	600/512	Helland; John R. et al.
US 6760619 B1	USPAT	20040706	Two lead universal defibrillation, pacing and sensing system	607/4	607/123	Helland; John R. et al.
US 6758854 B1	USPAT	20040706	Splittable occlusion balloon sheath and process of use	606/194	604/101.01	Butler; William et al.
US 6748277 B1	USPAT	20040608	Medical catheter/lead body design and means of manufacture thereof	607/122		Chitre; Yougandh et al.
US 6748268 B1	USPAT	20040608	Three lead universal pacing and shocking system	607/4		Helland; John R. et al.
US 6748261 B1	USPAT	20040608	Implantable cardiac stimulation device for and method of monitoring progression or regression of heart disease by monitoring interchamber conduction delays	600/510	600/509; 607/9	Kroll; Mark W. et al.
US 6745081 B1	USPAT	20040601	Coronary Sinus Cardiac Lead For Stimulating and Sensing The Atria of the Right and Left Heart and System	607/123		Helland; John R. et al.
US 6741885 B1	USPAT	20040525	Implantable cardiac device for managing the progression of heart disease and method	600/509	600/529; 607/19; 607/20	Park; Euljoon et al.
US 6735472	USPAT	20040511	Method of	607/5	607/123;	Helland; John

B2			defibrillating a heart with electrode configurations including a left ventricular defibrillation electrode		607/15	R.
US 6731985 B2	USPAT	20040504	Implantable cardiac stimulation system and method for automatic capture verification calibration	607/28		Poore; John W. et al.
US 6721601 B1	USPAT	20040413	System and method for automatic atrial capture detection and atrial pacing threshold determination	607/28		Bornzin; Gene A. et al.
US 6721598 B1	USPAT	20040413	Coronary sinus cardiac lead for stimulating and sensing in the right and left heart and system	607/4	607/123	Helland; John R. et al.
US 6711438 B1	USPAT	20040323	Method and apparatus for blanking T-waves from combipolar atrial cardiac signals based on expected T-wave locations	607/9		McClure; Kelly H. et al.
US 6701187 B1	USPAT	20040302	Implantable cardiac stimulation device and method for prolonging atrial refractoriness	607/14		Bornzin; Gene A. et al.
US 6687549 B1	USPAT	20040203	Lead conductor lumen with cross- sectional shape to minimize effects of compressive forces		-	Helland; John R. et al.
US 6671553 B1	USPAT	20031230	Implantable cardiac lead having terminating	607/37	607/119	Helland; John R. et al.

			connector strain relief and method of manufacture
US 6662047 B2	USPAT	20031209	Pacing mode to reduce effects of orthostatic hypotension and syncope 607/18 607/23 Sorensen; Chris et al.
US 6658292 B2	USPAT	20031202	Detection of patient's position and activity status using 3D accelerometer-based position sensor
US 6658289 B2	USPAT	20031202	Universal pacing and defibrillation system 607/4 607/123 Helland; John R.
US 6658283 B1	USPAT	20031202	Implantable cardiac stimulation device, system and method which provides an electrogram signal having the appearance of a surface electrocardiogram
US 6650945 B2	USPAT	20031118	Implantable cardiac coronary sinus lead having a defibrillation electrode of split configuration and method of manufacture 607/122 607/123 Helland; John R. et al.
US 6650931 B1	USPAT	20031118	System and method of automatically determining the onsets and ends of cardiac events and far-field signals McClure; Kelly H. et al.
US 6647295 B2	USPAT	20031111	Implantable cardiac stimulation device with detection and therapy for patients with vasovagal Implantable cardiac 607/9 607/17 Florio; Joseph J. et al.

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US 6640136 B1	USPAT	20031028	syncope Implantable cardiac stimulation device	607/28		Helland; John R. et al.
			with automatic electrode selection			
			for avoiding cross- chamber			
US 6636766	USPAT	20031021	stimulation System and method	607/19	607/17	Bornzin;
B2			for preventing sudden heart rate drop using			Gene A. et al.
			implantable cardiac pacing device			
US 6625493 B2	USPAT	20030923	Orientation of patient's position sensor using	607/17		Kroll; Mark W. et al.
US 6625492	USPAT	20030923	external field Implantable cardiac	607/17	607/9	Florio;
B2			stimulation device with detection and			Joseph J. et al.
			therapy for patients with vasovagal			
US 6625490	USPAT	20030923	System and method	607/9		McClure;
B1			of automatically adjusting sensing parameters based			Kelly H. et al.
			on temporal measurement of cardiac events			
US 6618619 B1	USPAT	20030909	Method and apparatus for reducing the effect of evoked	607/27	607/28	Florio; Joseph J. et al.
			responses on polarization			
			measurements in an automatic capture pacing system			
US 6609027 B2	USPAT	20030819	His Bundle sensing device and associated method	607/9		Kroll; Mark W. et al.
US 6606517 B1	USPAT	20030812	Methods and apparatus for	607/14		Park; Euljoon et al.
			preventing atrial			

arhythmias by overdrive pacing and prolonging atrial refractoriness using an implantable cardiac stimulation device US 6539259 USPAT 20030325 System and method of automatically adjusting sensitivity in an implantable cardiac stimulation device US 6519493 USPAT 20030211 Methods and apparatus for overdrive pacing heart tissue using an implantable cardiac stimulation device US 6512953 USPAT 20030128 System and method for automatically verifying capture during multiple heart used for automatically verifying capture during multiple heart tissue using an implantable cardiac stimulation. US 6510342 USPAT 20030121 Methods and apparatus for preventing atrial arrhythmias by overdrive pacing multiple heart tissue sites using an implantable cardiac stimulation device US 6498949 USPAT 20021224 Implantable cardiac device providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method and method and method leveled by the providing ventral and the properties of the providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method and method and method and method and method leveled by the providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method and method and method and method leveled by the providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method and method leveled by the providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method leveled by the providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method leveled by the provided provided by the provided by the provided by the provided by the provided by							
System and method of automatically adjusting an implantable cardiac stimulation device US 6519493 USPAT 20030211 Methods and apparatus for overdrive pacing heart tissue sing an implantable cardiac stimulation device US 6512953 USPAT 20030128 System and method for automatically verifying capture during multichamber stimulation US 6510342 USPAT 20030121 Methods and apparatus for preventing atrial arrhythmias by overdrive pacing multiple heart tissue sitse using an implantable cardiac stimulation US 6498949 USPAT 20021224 Methods and apparatus for preventing atrial arrhythmias by overdrive pacing multiple heart tissue sitse using an implantable cardiac stimulation device Implantable cardiac device providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method				and prolonging atrial refractoriness			
BI Of automatically adjusting sensitivity in an implantable cardiac stimulation device US 6519493 USPAT 20030211 Methods and apparatus for overdrive pacing heart tissue using an implantable cardiac stimulation device US 6512953 USPAT 20030128 System and method for automatically verifying capture during multichamber stimulation US 6510342 USPAT 20030121 Methods and apparatus for preventing atrial arrhythmias by overdrive pacing multiple heart tissue sites using an implantable cardiac stimulation device US 6498949 USPAT 20021224 Implantable cardiac device providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method							
B1 apparatus for overdrive pacing heart tissue using an implantable cardiac stimulation device US 6512953 USPAT 20030128 System and method for automatically verifying capture during multichamber stimulation US 6510342 USPAT 20030121 Methods and apparatus for preventing atrial arrhythmias by overdrive pacing multiple heart tissue sites using an implantable cardiac stimulation device US 6498949 USPAT 20021224 Implantable cardiac device providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method apparatus for 607/15 607/14 Park; Euljoon et al. Implantable cardiac device providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method		USPAT	20030325	of automatically adjusting sensitivity in an implantable cardiac	607/9		
B2 for automatically verifying capture during multichamber stimulation US 6510342 USPAT 20030121 Methods and apparatus for preventing atrial arrhythmias by overdrive pacing multiple heart tissue sites using an implantable cardiac stimulation G07/14 Park, Euljoon et al. US 6498949 USPAT 20021224 Implantable cardiac device providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method G07/14 G07/9 Correction Corret		USPAT	20030211	apparatus for overdrive pacing heart tissue using an implantable cardiac stimulation device	607/9		Joseph J. et al.
B1 apparatus for preventing atrial arrhythmias by overdrive pacing multiple heart tissue sites using an implantable cardiac stimulation device US 6498949 B2 USPAT 20021224 Implantable cardiac device providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method		USPAT	20030128	for automatically verifying capture during multi-chamber			Joseph J. et al.
device providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension and method		USPAT	20030121	apparatus for preventing atrial arrhythmias by overdrive pacing multiple heart tissue sites using an implantable cardiac	607/15	607/14	et al.
US 6490489 USPAT 20021203 Implantable cardiac 607/122 Bornzin;	ì	USPAT	20021224	Implantable cardiac device providing repetitive non-reentrant ventriculo-atrial synchronous (RNRVAS) rhythm therapy using VA interval extension	607/14	607/9	A. et al.
	US 6490489	USPAT	20021203	Implantable cardiac	607/122		Bornzin;

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D2			single pass			Gene A. et al.
B2	1		single pass coronary sinus lead		ĺ	Gene A. e. ai.
	1	ı	for providing		1	
1	1				1	
l	1	1	pacing and		Í	
1	1	1	defibrillation and	'	1	
1	1	1	method of		(
			manufacture		 	
US 6477419	USPAT	20021105	Implantable cardiac	607/14	607/9	Levine; Paul
B2		1	device providing	!	1	A. et al.
ļ.	1	1	repetitive non-		1	
!	1	1	reentrant	'	1	
!	1	1	ventriculo-atrial	,	1	
!	.	1	synchronous	!		
!	1	1	(RNRVAS) rhythm		1	
J	'	1	therapy using		1	
J	'	1	secondary pacing		1	
J	'	1	pulses and method			
US 6466821	USPAT	20021015	AC/DC multi-axis	607/18	607/19	Pianca; Anne
B1	001111	20021515	accelerometer for			M. et al.
Di	'		determining patient			
			activity and body			
	-1		position			
US 6459937	USPAT	20021001	Endocardial pacing	607/126	607/119	Morgan;
	OSLAT	20021001	lead with	0077123	007/112	Kevin L. et
B1	'		detachable tip			al.
	1		_			ai.
	TIONAT	2222224	electrode assembly	607/122	-	Pianca; Anne
US 6456890	USPAT	20020924	Lead with	00//122		M. et al.
B2	'	1	polymeric tubular			M. et ai.
		ļ	liner for guidewire			·
	ļ	1	and stylet insertion	607/100		D'array Anno
US 6456889	USPAT	20020924	Lead with	607/122		Pianca; Anne
B2			polymeric tubular			M. et al.
		l J	liner for guidewire			
	<u> </u>		and stylet insertion		ļ	
US 6456881	USPAT	20020924	System and method	607/27		Bornzin;
B1		1	of identifying			Gene A. et al.
			fusion for dual-			
		1	chamber automatic			
		1	capture stimulation			
		1	device			
US 6456880	USPAT	20020924	Implantable cardiac	607/25		Park; Euljoon
B1		,	stimulation device			et al.
5.		1	for and method of			
		'	monitoring			
}		1	progression or			
		'	regression of a			
			108.000.			

			patient's heart condition by monitoring ventricular repolarization interval dispersion			
US 6449509 B1	USPAT	20020910	Implantable stimulation device having synchronous sampling for a respiration sensor	607/20	600/533; 600/547; 607/17	Park; Euljoon et al.
US 6408210 B1	USPAT	20020618	System and method for automatic atrial capture detection and atrial pacing threshold determination	607/28		Bornzin; Gene A. et al.
US 6405091 B1	USPAT	20020611	Lead assembly with masked microdisk tip electrode and monolithic controlled release device	607/120	607/126	Vachon; David J. et al.
US 6389316 B1	USPAT	20020514	System and method for automatic atrial capture detection and atrial pacing threshold determination	607/28	607/11	Bornzin; Gene A. et al
US 6377852 B1	USPAT	20020423	Implanatable cardiac stimulation device and method for prolonging atrial refractoriness	607/9		Bornzin; Gene A. et al
US 6351672 B1	USPAT	20020226	System and method for modulating the pacing rate based on patient activity and position	607/19	607/17	Park; Euljoor et al.
US 6295471 B1	USPAT	20010925	System and method for automatic atrial capture detection and atrial pacing threshold	607/28		Bornzin; Gene A. et al

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			determination			
US 6275733 B1	USPAT	20010814	Dual sensor rate response pacemaker	607/18	607/19	Park; Euljoon et al.
US 6269264 B1	USPAT	20010731	Method for measuring impedance in the body	600/547	607/28	Weyant; Robert R. et al.
US 6175766 B1	USPAT	20010116	Cardiac pacemaker autothreshold arrangement and method with reliable capture	607/28		Bornzin; Gene A. et al.
US 6128534 A	USPAT	20001003	Implantable cardiac stimulation device and method for varying pacing parameters to mimic circadian cycles	607/17	607/25	Park; Euljoon et al.
US 6122546 A	USPAT	20000919	Pacemaker and method of operating same that provides functional atrial cardiac pacing with ventricular support	607/9		Sholder; Jason A. et al.
US 6058328 A	USPAT	20000502	Implantable stimulation device having means for operating in a preemptive pacing mode to prevent tachyarrhythmias and method thereof	607/14		Levine; Paul A. et al.
US 6044294 A	USPAT	20000328	Methods and apparatus for measuring impedance in the body	600/547	607/9	Mortazavi; Said et al.
US 5991661 A	USPAT	19991123	System and method for measuring cardiac activity	607/19		Park; Euljoon et al.
US 5891176 A	USPAT	19990406	System and method for providing hemodynamically	607/18		Bornzin; Gene A.

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			optimal pacing			
US 5873895 A	USPAT	19990223	Pacemaker and method of operating same that provides functional atrial cardiac pacing with ventricular support	607/9		Sholder; Jason A. et al.
US 5814077 A	USPAT	19980929	Pacemaker and method of operating same that provides functional atrial cardiac pacing with ventricular support	607/9		Sholder; Jason A. et al.
US 5810739 A	USPAT	19980922	Methods and apparatus for classifying cardiac events with an implantable cardiac device	600/510		Bornzin; Gene A. et al.
US 5800467 A	USPAT	19980901	Cardio- synchronous impedance measurement system for an implantable stimulation device	607/17		Park; Euljoon et al.
US 5766229 A	USPAT	19980616	Capture verification method and apparatus for implantable pacemaker utilizing heart rhythm stability measurements to minimize the likelihood of fusion	607/28	607/16	Bornzin; Gene A.
US 5733312 A	USPAT	19980331	System and method for modulating the output of an implantable medical device in response to	607/17		Schloss; Harold C. et al.

A			detection system for an implantable stimulation device and method		600/521; 607/14	Kelly H. et al.
US 5697956 A	USPAT	19971216	Implantable stimulation device having means for optimizing current drain	607/28		Bornzin; Gene A.
US 5674274 A	USPAT	19971007	Implantable adjustable single- pass A-V lead for use with an implantable stimulation device	607/123	607/122	Morgan; Kevin L. et al.
US 5674273 A	USPAT	19971007	Implantable pacing lead with crush resistant, protective sleeve	607/122	604/175; 607/126	Helland; John R.
US 5662697 A	USPAT	19970902	Transvenous internal cardiac defibrillation apparatus having lead and electrode providing even distribution of electrical charge	607/122	607/126; 607/5	Li; Hong et al.
US 5645580 A	USPAT	19970708	Implantable medical device lead assembly having high efficiency, flexible electrode head	607/122		Moaddeb; Shawn et al.
US 5643338 A	USPAT	19970701	Single-pass A-V lead for pacing with stimulation of right ventricular outflow tract	607/123	607/125	Bornzin; Gene A. et al.
US 5628780 A	USPAT	19970513	Protective, visible suture sleeve for anchoring transvenous lead bodies	607/126	604/174; 604/175; 604/362	Helland; John R. et al.
US 5628779 A	USPAT	19970513	Single-pass A-V pacing lead	607/123	607/125	Bornzin; Gene A. et al.
US 5628774	USPAT	19970513	Cardiac lead with	607/116	607/122	Helland; John

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A			composite insulating structure			R. et al.
US 5571163 A	USPAT	19961105	Combination pacing and defibrillating lead having atrial sensing capability and method	607/123		Helland; John R.
US 5560369 A	USPAT	19961001	Cardiac arrhythmia detection system for an implantable stimulation device and method	600/518	600/517; 600/521	McClure; Kelly H. et al.
US 5549650 A	USPAT	19960827	System and method for providing hemodynamically optimal pacing therapy	607/24	607/25	Bornzin; Gene A. et al.
US 5549649 A	USPAT	19960827	Programmable pacemaker including an atrial rate filter for deriving a filtered atrial rate used for switching pacing modes	607/15		Florio; Joseph J. et al.
US 5545201 A	USPAT-	19960813	Bipolar active fixation lead for sensing and pacing the heart	607/127	600/377	Helland; John R. et al.
US 5540725 A	USPAT	19960730	Upper rate response for implantable pacemaker based on atrial lock interval pacing	607/9		Bornzin; Gene A. et al.
US 5531781 A	USPAT	19960702	Implantable lead having a steering distal guide tip	607/122	600/381; 607/119; 607/125; 607/126	Alferness; Clifton A. et al.
US 5514162 A	USPAT	19960507	System and method for automatically determining the slope of a transfer function for a rateresponsive cardiac	607/19		Bornzin; Gene A. et al.

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			pacemaker			
US 5513644 A	USPAT	19960507	Cardiac arrhythmia detection system for an implantable stimulation device	600/521	128/901	McClure; Kelly H. et al.
US 5509926 A	USPAT	19960423	Implantable medical device having means for suppressing thermally induced signals from piezoelectric sensors and method thereof	607/19		Mortazavi; Said et al.
US 5476483 A	USPAT	19951219	System and method for modulating the base rate during sleep for a rateresponsive cardiac pacemaker	607/17		Bornzin; Gene A. et al.
US 5466254 A	USPAT	19951114	Coronary sinus lead with atrial sensing capability	607/123		Helland; John R.
US 5456708 A	USPAT	19951010	Rotatable pin, screw-in pacing and sensing lead having improved tip and fluidic seal	607/127		Doan; Phong D. et al.
US 5431681 A	USPAT	19950711	Combination pacing and defibrillating lead having sensing capability	607/4	607/119	Helland; John R.
US 5423883 A	USPAT	19950613	Implantable myocardial stimulation lead with sensors thereon	607/127	600/375; 607/18	Helland; John R.
US 5423763 A	USPAT	19950613	Protective, visible suture sleeve for anchoring transvenous lead bodies	604/174	128/DIG.26; 600/431; 604/175	Helland; John R. et al.
US 5411528 A	USPAT	19950502	Electrically programmable polarity connector	607/5	307/127; 607/37; 607/38	Miller; Leslie S. et al.

			for an implantable body tissue stimulator			
US 5387233 A	USPAT	19950207	Intravenous cardiac lead with improved fixation and method	607/126	607/122	Alferness; Clifton A. et al.
US 5385579 A	USPAT	19950131	Myocardial body implantable lead	607/130		Helland; John R.
US 5324328 A	USPAT	19940628	Conductor for a defibrillator patch lead	607/129		Li; Hong et al.
US 5324324 A	USPAT	19940628	Coated implantable stimulation electrode and lead	607/120		Vachon; David J. et al.
US 5318572 A	USPAT	19940607	High efficiency tissue stimulating and signal sensing electrode	607/121	607/122	Helland; John R. et al.
US 5154183 A	USPAT	19921013	Bipolar myocardial electrode assembly	607/131	600/375; 600/393	Kreyenhagen; Paul E. et al.
US 4941475 A	USPAT	19900717	Thermodilution by heat exchange	600/505	600/526; 600/549	Williams; Wilbur R. et al.
US 4813421 A	USPAT	19890321	Oxygen sensing pacemaker	600/333	356/41; 607/22	Baudino; Michael D. et al.
US 4807629 A	USPAT	19890228	Oxygen sensing pacemaker	607/22	600/333; 600/510	Baudino; Michael D. et al.
US 4791935 A	USPAT	19881220	Oxygen sensing pacemaker	600/333	600/505	Baudino; Michael D. et al.
US 4725128 A	USPAT	19880216	Method for delivering light from multiple light emitting diodes over a single optical fiber	385/91	156/60; 156/64; 257/100; 257/89; 257/98; 257/99; 385/90	Bornzin; Gene A. et al.
US H000356 H	USPAT	19871103	Epicardial lead having low threshold, low polarization myocardial electrode	607/126		Stokes; Kenneth B. et al.

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US 4502492	USPAT	19850305		Low-polarization	607/121	607/126	Bornzin;
A				low-threshold			Gene A.
				electrode			
US 4499907	USPAT	19850219		Energy limiting	607/122	·	Kallok;
Α				cardioversion lead			Michael J. et
							al.
US 4467807	USPAT	19840828		Rate adaptive	607/22		Bornzin;
Α				demand pacemaker			Gene A.
US 4033357	USPAT	19770705	7	Non-fibrosing	607/121	607/126	Helland; John
Α				cardiac electrode			R. et al.
US 3757792	USPAT	19730911		AUTOMATIC	607/11	331/183;	Mulier; Pieter
Α				THRESHOLD		607/28;	M. J. et al.
				COMPENSATING		607/9	
	:			DEMAND			
				PACEMAKER			

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